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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,868	06/07/2000	JOSEF SINGER	P00.0638	2271

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EXAMINER

RYMAN, DANIEL J

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 08/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/555,868

Applicant(s)

SINGER, JOSEF

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9 and 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Conclusion

Drawings

1. Figures 4 and 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 16 is objected to because of the following informalities: claim 16 contains two phrases which are simply variations of one another: "with respect to the position of a first mini-cell...in every transmission frame" and "with respect to a respective position...each corresponding transmission frame". One phrase should be deleted. Examiner will interpret the claim to read with the first phrase: "with respect to the position of a first mini-cell...in every transmission frame". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 8 recites the limitation "the position data" in line 2-3. There is insufficient antecedent basis for this limitation in the claim. Claim 8 depends upon claim 6 which does not

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contain the limitation "the position data". Claim 7, however, does contain the limitation of "position data". The Examiner will interpret claim 8 to depend upon claim 7 rather than claim 6.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-9, 11-13, 15-17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bharucha et al (USPN 6,229,821) in view of Casper et al (USPN 5,963,608).

8. Regarding claims 6, 15, 19, and 20, Bharucha discloses an apparatus and method for sending and receiving data in a serial transmission system, comprising means for and steps for: receiving and arranging data incoming in a plurality of data channels into a plurality of mini-cells having a flexible length (col. 1, lines 31-39; col. 2, lines 13-19; and col. 3, lines 24-31) where statistical multiplexing evidences the presence of a plurality of data channels; generating a single data stream from the plurality of mini-cells (col. 3, lines 24-37), wherein the received plurality of mini-cells are arranged following one another in the data stream (Fig. 6 and col. 3, line 66-col. 4, line 5); directly generating individual transmission frames from the data stream (Fig 6; col. 3, lines 36-37; and col. 3, line 56-col. 4, line 5); transmitting the generated individual transmission frames via the serial transmission system, wherein the individual transmission frames contain a number of mini-cells and correspond to the frame structure of the serial transmission system (Fig 6; col. 3, lines 24-37; and col. 3, line 56-col. 4, line 5). Bharucha possibly does not expressly disclose receiving incoming transmission frames corresponding to a

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frame structure of the serial transmission system, directly generating a single data stream from the incoming transmission frames; distributing data contained in a plurality of mini-cells contained within the data stream onto respective data channels; and restoring data of individual data channels from the plurality of mini-cells; however, such steps would have been obvious to one of ordinary skill in the art at the time of the invention. Bharucha teaches a method for reducing overhead by packing AAL2 mini-cells directly into physical layer frames. While Bharucha does not expressly disclose that the physical layer frames are unpacked by the reverse process that the mini-cells were packed upon reception of the physical layer frames at a receiver, it would have been obvious to one of ordinary skill in the art at the time of the invention to do this in order to retrieve the information transmitted in the mini-cells. Bharucha possibly does not expressly disclose that the serial transmission system is at least one of an SDH and a PDH transmission system; however, SDH is a well known serial transmission system, as is evidenced by Casper (col. 2, lines 25-29). It would have been obvious to one of ordinary skill in the art at the time of the invention to use SDH as the serial transmission system since SDH is a well known serial transmission system.

9. Regarding claims 2 and 11, referring to claims 19 and 20, Bharucha in view of Casper discloses that it is well known in the art to have an ATM data packet generator configured to generate and recover data packets corresponding to an asynchronous transfer mode from the data stream and incoming transmission frames, respectively (Bharucha: Figs. 1-4 and col. 1, line 31-col. 3, line 20); a transmission frame generator configured to generate transmission frames corresponding to one of the SDH and PDH transmission system from the data packets corresponding to the asynchronous transfer mode; and a data stream generator configured to

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generate the data stream from the data packets corresponding to the asynchronous transfer mode (Bharucha: Figs. 1-4 and col. 1, line 31-col. 3, line 20 and Casper: col. 2, lines 25-29).

10. Regarding claims 3, 7, 12, and 16, referring to claims 19, 6, 20, and 15, Bharucha in view of Casper teaches generating position data with respect to a position of a first mini-cell for each corresponding individual transmission frame (Bharucha: Figs. 6 and 7 and col. 4, lines 17-22); and inserting the position data into each corresponding individual transmission frame such that upon reception the data stream is generated on the basis of position data with respect to the position of a first mini-cell in the transmission frame that are contained in every transmission frame (Bharucha: Figs. 6 and 7 and col. 4, lines 17-22).

11. Regarding claims 4, 8, 13, and 17, referring to claims 3, 7, 12, and 16, Bharucha in view of Casper discloses that the position data are arranged at the beginning of a respective transmission frame (Bharucha: Figs. 6 and 7 and col. 4, lines 17-22).

12. Regarding claims 5 and 9, referring to claims 19 and 6, Bharucha in view of Casper discloses that generating a single data stream from the plurality of mini-cells includes a statistical time-division multiplexing of the data incoming in the plurality of data channels (Bharucha: col. 3, lines 24-27 and col. 5, lines 1-6).

13. Claims 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bharucha et al (USPN 6,229,821) in view of Casper et al (USPN 5,963,608) as applied to claims 20 and 15 above, and further in view of Petersen et al (USPN 5,802,051).

14. Regarding claims 14 and 18, referring to claims 20 and 15, Bharucha in view of Casper possibly does not expressly disclose that distributing data includes demultiplexing the data stream corresponding to the information contained in a respective header of the plurality of

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mini-cells. Petersen teaches that the headers of mini-cells contain a connection identifier as well as a length field (col. 2, lines 32-48) where a connection identifier is needed upon demultiplexing to ensure that each mini-cell is assigned to the correct data stream and a length field is needed to ensure that the entirety of a mini-cell is properly received and sent to the data stream. It would have been obvious to one of ordinary skill in the art at the time of the invention to demultiplex the data stream corresponding to the information contained in a respective header of the plurality of mini-cells since the information in the mini-cells is needed in order to ensure proper reception and forwarding of each mini-cell.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wirkestrand (USPN 5,774,469) see col. 2, lines 17-36 which teaches about mini-cell headers and a pointer in the frame of the mini-cell encapsulation which points to the start of the first mini-cell in the frame. Chitre et al (USPN 5,600,653) see col. 1, lines 35-57 which details that it is well known to transport ATM over SDH and PDH networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (703)305-6970. The examiner can normally be reached on Mon.-Fri. 7:00-5:00 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703)308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-6743 for regular communications and (703)308-9051 for After Final communications.

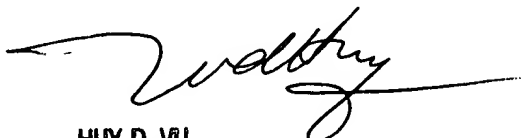
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Daniel J. Ryman
Examiner
Art Unit 2665

DSR
Daniel J. Ryman
August 4, 2003


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